



Fabricating Tooth Supported Overdenture Using Locators® as a Method of Retention: Case Report

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ABSTRACT

Tooth supported complete overdentures have been a treatment option for decades and they provide the patient with proprioception (the awareness of jaw-space relationships) which is normally lost when teeth are extracted. In addition, the overdenture provides the patient with improved biting force and neuromuscular control. The objective of this case presentation is to discuss a technique used to fabricate complete tooth supported overdenture. Assessments: 80 year old African American female presented to Graduate Prosthodontic Clinic at IUPUI complaining of difficulty in chewing food due to her partially edentulous mandible. Her medical history revealed a history of hypothyroidism, osteoarthritis, rheumatoid arthritis and hypertension. In 2013 root canal treatments were done to #22,27 with post space preparations. Intraoral examination revealed a resorbed mandibular residual ridge. The prosthodontic treatment plan was to retain these two teeth and attach Locators® to them to improve the retention of the denture. Impression was made of both post spaces and posts were waxed up on the master cast. Cast-to-Locator® attachments were incorporated in the wax ups, which were invested and cast in Type III Gold Alloy. The final posts with Cast-to-Locator® attachments were cemented with resin cement. Finally, the mandibular complete overdenture was adjusted and delivered to the patient. Evaluation: the Locator® attachments were stable in the gold posts without any neither periapical pathology nor gingival inflammation. In addition, the patient was able to properly clean the remaining root and the internal surface of the denture. In conclusion: This technique resulted in a very satisfying and retentive denture for the patient while utilizing minimum invasive procedures.

ADVANTAGES AND DIS-ADVANTAGS

Advantages:

- 1.Improve both retention and stability
- 2.Reducing alveolar bone resorption
- 3.Cost-effective
- 4.Maintain more dental proprioception than implant-retained overdentures .
- 5.Improve the psychological aspect of the patient.

Disadvantages :

1. Increase risk of root caries and periodontal diseases
2. Root fracture.
3. Endodontic Failure.

PRE-OPERATIVE



LABORATORY PROCEDURES



DELIVERY



CONCLUSION

Since 1960s , the use of natural teeth as overdenture abutments has become an acceptable, realistic alternative to the extraction of remaining teeth. A study by Ettinger RL. et.al. shows that the rate of loss of overdenture abutment teeth was 20.0 percent and most of the failures could have been prevented. Tooth-supported overdentures can be retained with attachments and can improve both retention and stability while simultaneously reducing alveolar bone resorption. They may also be more cost-effective and maintain more dental proprioception than implant- supported overdentures. However, this treatment modality require high maintenance to prevent failures.

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